

GENERAL NOTES:

- CONTRACTOR TO FIELD VERIFY LOCATION & ELEVATION OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.
- UTILITY CONSTRUCTION SHALL BE IN ACCORDANCE WITH CITY OF RALEIGH AND / OR NCDOT STANDARDS AND SPECIFICATIONS UNLESS OTHERWISE NOTED.

CURVE TABLE				
CURVE	LENGTH	RADIUS	CHORD	CHORD BEARING
C1	66.42'	200.00'	66.11'	S03° 28' 33"W
C2	14.96'	1050.00'	14.96'	S29° 27' 07"E
C3	95.40'	1050.00'	95.36'	S27° 15' 27"E
C4	39.26'	25.00'	35.35'	S69° 38' 50"E
C5	148.84'	1030.00'	148.71'	N69° 29' 59"E
C6	107.58'	1030.00'	107.53'	N76° 37' 54"E

LINE TABLE		
LINE #	DIRECTION	LENGTH
L1	S87° 16' 05"E	74.24'

VACANT
ZONED CO

N/F
STONE LAND
INVESTMENTS LLC
PIN 1759-80-2379
D.B. 17398, PG. 329

COMMERCIAL LOT
1.45 AC
(VACANT)

EX DAYCARE FACILITY
ZONED CO-SUD AND R&PUD
N/F
INVESTMENT CHOICES IV, LLC.
PIN# 1759-80-0090
D.B. 16866, PG. 548

EX CB
T/G=421.25' INV
IN=412.17' INV
OUT=412.11'

EX 15" RCP
TERMINUS
UNKNOWN
EX SSMH
RIM=420.10' INV
IN(N)=403.50' INV
OUT(S)=403.40'

EX 20' CITY OF
RALEIGH SANITARY
SEWER EASEMENT
B.M. 2004, PG. 929
EX CB
T/G=420.87' INV
IN=414.87' INV
OUT=414.72'

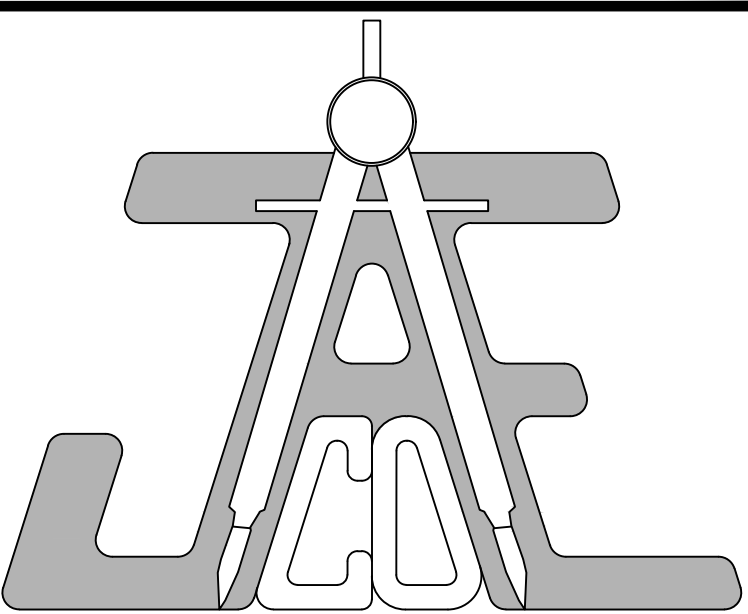
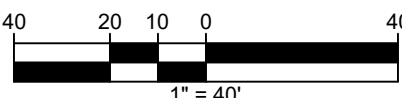
EX AUTO PARTS STORE
ZONED R&PUD
N/F
CAROLINAZ LLC
PIN# 1758-89-0677
D.B. 12167, PG. 1803

EX CO
INV=412.44

ZONING SUMMARY:

TOTAL TRACT AREA 7.4419 AC.
EX R&PUD ZONING 4.3772 AC.
EX CO-SUD ZONING 3.0647 AC.

DISTURBED AREA = 6.0 AC

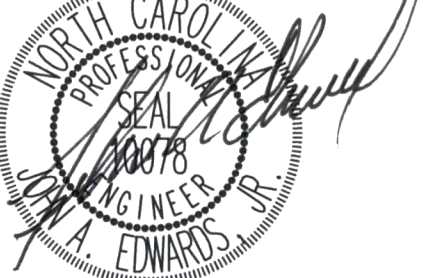


JAECO
Consulting Engineers and Land Surveyors

NC License F-0289
333 Wade Ave., Raleigh, N.C. 27605
Phone: (919) 828-4428
Fax: (919) 828-4711
E-mail: info@jaeco.com

www.jaeco.com

FINAL DRAWING



FOR REVIEW PURPOSES ONLY

**A-MASTER TEAM
TOWNHOMES**
151 GRAND ROCK WAY
ROLESVILLE, NC 27571

A-MASTER TEAM, LLC
6200 FALLS OF NEUSE ROAD
SUITE 10
RALEIGH, NC 27609

ABBREVIATIONS

EX	EXISTING	TBR/L	TO BE RELOCATED
PROP	PROPOSED	FP	FLOOD PLAIN
APPROX	APPROXIMATE	FEMA	FEDERAL EMERGENCY MANAGEMENT AGENCY
LOC	LOCATION		
BM	BOOK OF MAPS		
DB	DEED BOOK		
PG	PAGE	ESMT	EASEMENT
N/F	NOW OR FORMERLY	TYP	TYPICAL
ROW	RIGHT OF WAY	SWM	STORMWATER MANAGEMENT
EIP	EX IRON PIPE		
EMAG	EX MAG NAIL	SF	SQUARE FEET
ECM	EX CONCRETE MONUMENT	AC	ACRE
		LF	LINEAR FEET
EIR	EX IRON ROD	UDO	UNIFIED DEVELOPMENT ORDINANCE
IPS	IRON PIPE SET		
EOP	EDGE OF PAVEMENT	GIS	GEOGRAPHIC INFORMATION SYSTEM
SS	SANITARY SEWER	NCDOT	NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
FM	FORCE MAIN		
PH	FIRE HYDRANT		
ELEC	ELECTRIC		
TBD	TO BE DETERMINED		
TBR	TO BE REMOVED		

EX PROPERTY LINE	---
EX ADJACENT PROPERTY LINE	---
EX CENTERLINE	---
EX MAJOR CONTOUR	---xxx---
EX MINOR CONTOUR	---xxx---
EX FENCE	---
EX WATER LINE	---
EX SEWER LINE	---

EXISTING CONDITIONS & DEMOLITION PLAN

Revisions		
Number	Description	Date

JAECO #: 362-09

DRAWING SCALE: 1" = 40'

DRAWN BY: TT

CHECKED BY: JAE, JR.

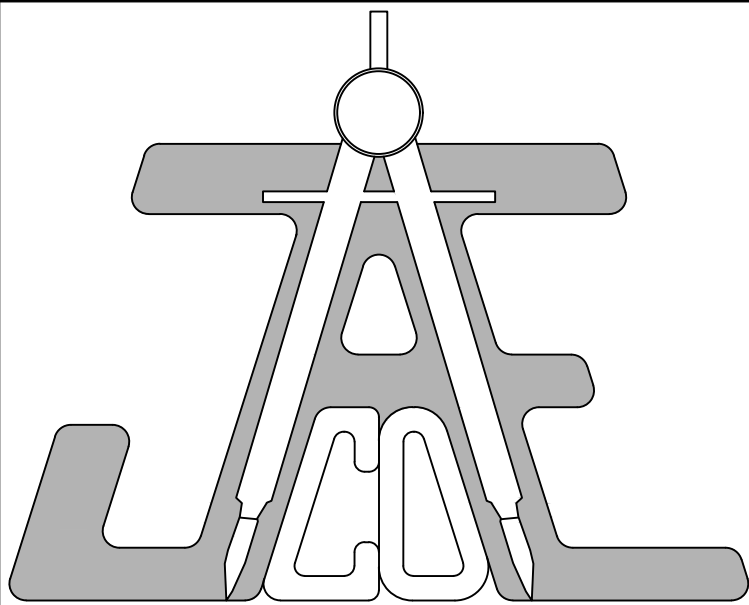
DATE ISSUED: 06/22/2020

C-1.0



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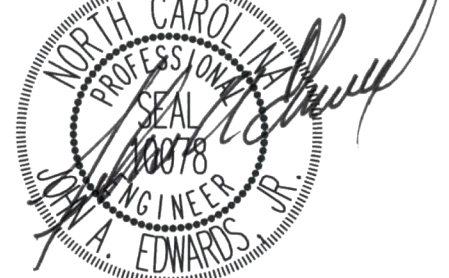


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PROPOSED	_____
PROPERTY LINE	_____
PROP. LOT LINE	_____
PROP. ESMT	_____
PROP. CENTERLINE	_____
PROP. CURB & GUTTER	_____
PROP. BUFFER AREA	_____
PROP. BIORETENTION	_____

SUMMARY:

PARKING REQUIRED
TOWNHOMES (ALL 2 BR)
VISITOR
MAIL KIOSK
TOTAL REQUIRED

94 (2 PER 2BR DU)
12 (1 PER 4 DU'S)
4 SPACES (1 HC VAN)
110 SPACES

PARKING PROVIDED

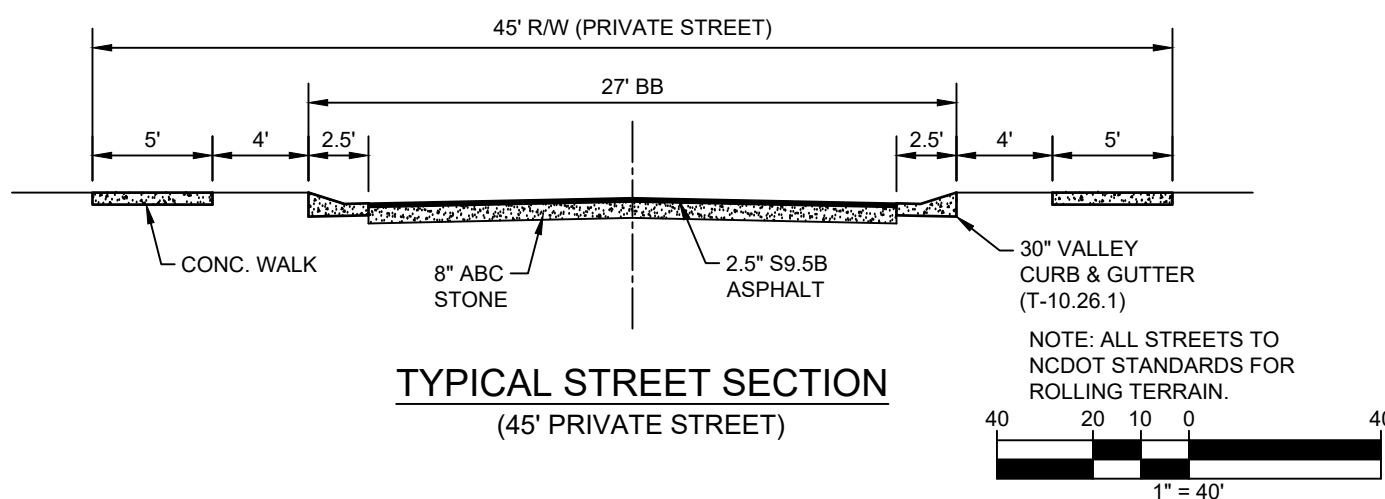
111 SPACES

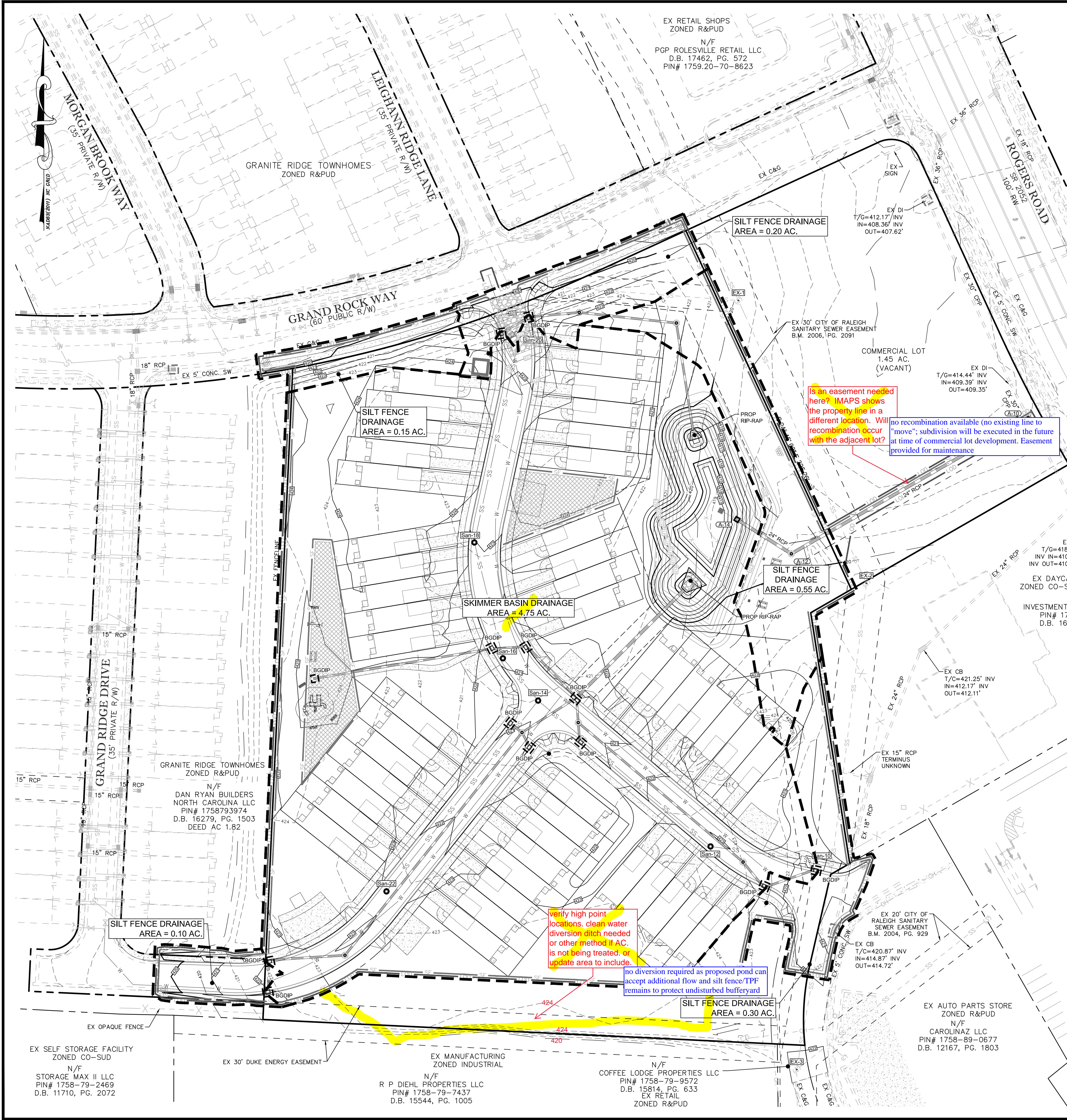
SITE PLAN

Revisions		
Number	Description	Date

JAECO #: 362-09
DRAWING SCALE: AS SHOWN
DRAWN BY: JT
CHECKED BY: AE, JR.
DATE ISSUED: 06/22/2020

C-2.0





STOCKPILE NOTES

DESIGN CRITERIA:

- A 25-FOOT TEMPORARY MAINTENANCE AND ACCESS EASEMENT SHALL BE SHOWN AROUND ALL PROPOSED STOCKPILES (EROSION CONTROL MEASURES SURROUNDING THE STOCKPILE SHALL BE SHOWN AT THE OUTER LIMIT OF THIS EASEMENT).
- STOCKPILE FOOTPRINTS SHALL BE SETBACK A MINIMUM OF 25' FROM ADJACENT PROPERTY LINES.
- A NOTE SHALL BE PROVIDED ON THE APPROVED PLAN THAT STOCKPILE HEIGHT SHALL NOT EXCEED 35 FEET.
- STOCKPILE SLOPES SHALL BE 2:1 OR FLATTER.
- APPROVED BMPs SHALL BE SHOWN ON A PLAN TO CONTROL ANY POTENTIAL SEDIMENT LOSS FROM A STOCKPILE.
- STOCKPILING MATERIALS ADJACENT TO A DITCH, DRAINAGEWAY, WATERCOURSE, WETLAND, STREAM BUFFER, OR OTHER BODY OF WATER SHALL BE AVOIDED UNLESS AN ALTERNATIVE LOCATION IS DEMONSTRATED TO BE UNAVAILABLE.
- ANY CONCENTRATED FLOW LIKELY TO AFFECT THE STOCKPILE SHALL BE DIVERTED TO AN APPROVED BMP.
- OFF-SITE SPOIL OR BORROW AREAS MUST BE IN COMPLIANCE WITH WAKE COUNTY UDO AND STATE REGULATIONS. ALL SPOIL AREAS OVER AN ACRE ARE REQUIRED TO HAVE AN APPROVED SEDIMENT CONTROL PLAN. DEVELOPER/CONTRACTOR SHALL NOTIFY WAKE COUNTY OF ANY OFFSITE DISPOSAL OF SOIL, PRIOR TO DISPOSAL. FILL OF FEMA FLOODWAYS AND NON-ENCROACHMENT AREAS ARE PROHIBITED EXCEPT AS OTHERWISE PROVIDED BY SUBSECTION 14-19.2 OF THE WAKE COUNTY UNIFIED DEVELOPMENT ORDINANCE (CERTIFICATIONS AND PERMITS REQUIRED).

MAINTENANCE REQUIREMENTS:

- SEEDING OR COVERING STOCKPILES WITH TARPS OR MULCH IS REQUIRED AND WILL REDUCE EROSION PROBLEMS. TARPS SHOULD BE KEPT IN AT THE TOP OF THE SLOPE TO KEEP WATER FROM RUNNING UNDERNEATH THE PLASTIC.
- IF A STOCKPILE IS TO REMAIN FOR FUTURE USE AFTER THE PROJECT IS COMPLETE (BUILDERS, ETC.), THE FINANCIAL RESPONSIBLE PARTY MUST NOTIFY WAKE COUNTY OF A NEW RESPONSIBLE PARTY FOR THAT STOCKPILE.
- THE APPROVED PLAN SHALL PROVIDE FOR THE USE OF STAGED SEEDING AND MULCHING ON A CONTINUAL BASIS WHILE THE STOCKPILE IS IN USE.
- ESTABLISH AND MAINTAIN A VEGETATIVE BUFFER AT THE TOE OF THE SLOPE (WHERE PRACTICAL).

STABILIZATION NOTE

ANY PORTION OF A SITE UPON WHICH FURTHER LAND-DISTURBING ACTIVITY IS NOT BEING UNDERTAKEN SHALL BE PROVIDED WITH PERMANENT GROUND COVER SUFFICIENT TO RESTRAIN EROSION WILL BE APPLIED WITHIN 14 CALENDAR DAYS FROM LAST LAND DISTURBING ACTIVITY. FOR STEEP SLOPES, THAT AREA MUST BE STABILIZED WITHIN 7 CALENDAR DAYS OF TEMPORARILY OR PERMANENTLY SUSPENDING THE LAND DISTURBING ACTIVITY.

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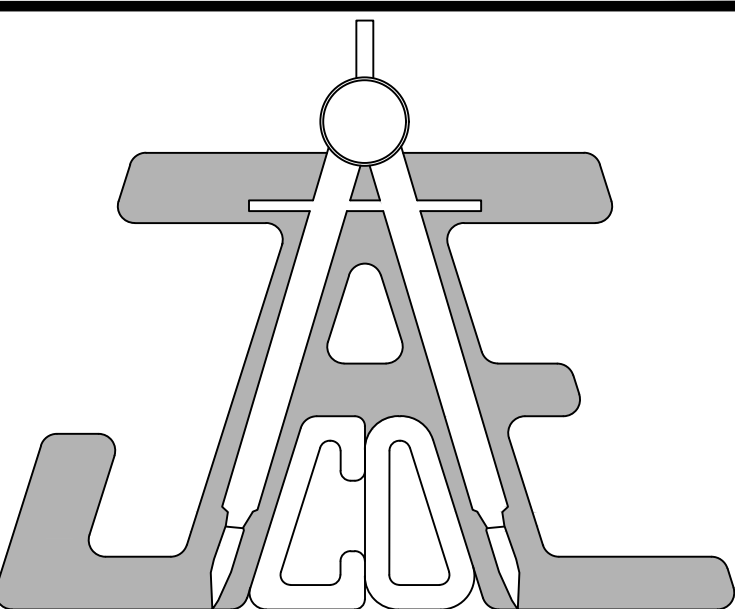
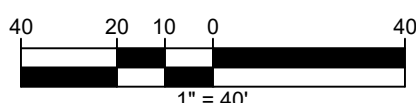
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RIPRAP SCHEDULE						
	ENTRY WIDTH [FT]	WIDTH [FT]	LENGTH [FT]	d ₅₀ [IN]	d _{max} [IN]	THICKNESS [IN]
A-16	6	20.5	16	13	19.5	24
A-28	4	10	7.5	6	9	18

PHASE II CONSTRUCTION SEQUENCE:

- CONTINUE ROUGH GRADING. MAINTAIN AND ADJUST GRADES TO ENSURE POSITIVE DRAINAGE TO SKIMMER BASIN.
- CONSTRUCT RETAINING WALLS ON SITE AS NEEDED TO BRING SITE TO GRADE.
- INSTALL REMAINING STORMDRAIN, WORKING FROM DOWNSTREAM TO UPSTREAM INSTALLING INLET PROTECTION IMMEDIATELY AFTER EACH INLET IS INSTALLED AS SHOWN ON THE PLAN. DIVERT RUN-OFF TO INLETS AS ROUGH GRADES ARE COMPLETED.
- INSTALL WATER AND SEWER LINES FROM DOWNSTREAM TO UPSTREAM AS NECESSARY DURING ROUGH GRADING TO AVOID CONFLICTS WITH STORM DRAIN SYSTEM.
- INSTALL RIP-RAP AT A-16 AND A-28.
- HAUL AWAY ANY EXTRA TOPSOIL AND MATERIAL AS NEEDED TO BALANCE SITE. IF ANY TOPSOIL IS TO REMAIN STOCKPILED PROTECT WITH SILT FENCING AROUND PERIMETER AND REFER TO STOCKPILE NOTES.
- SUBMIT DOCUMENTATION REQUIRED UNDER THE SITE WPDSS STORMWATER PERMIT FOR CONSTRUCTION ACTIVITY TO STORMWATER CONTROL INSPECTIONS THROUGHOUT THE PROJECT.
- STABILIZE SITE AS AREAS ARE BROUGHT UP TO FINISH GRADE WITH VEGETATION, PAVING, DITCH LININGS, ETC. SEED AND MULCH DENUDED AREAS PER GROUND STABILIZATION TIME FRAMES.
- MAINTAIN SEDIMENT AND EROSION CONTROL DEVICES AFTER EVERY RAIN EVENT GREATER THAN ONE (1) INCH AND ONCE PER WEEK. REMOVE ANY SILT BUILDUP ON ANY SILT FENCING AS NEEDED TO PREVENT BREACH. SEED ANY AREAS OF THE SIT WITHIN 14 DAYS OF COMPLETION OF ANY PHASE OF GRADING IN THAT AREA.
- WHEN CONSTRUCTION IS COMPLETE AND ALL AREAS ARE STABILIZED COMPLETELY, CALL ENVIRONMENTAL CONSULTANT FOR AN INSPECTION.
- SCHEDULE A SITE MEETING WITH THE ENVIRONMENTAL CONSULTANT TO DETERMINE IF THE SKIMMER BASIN CAN BE CONVERTED TO A PERMANENT BIORETENTION POND. INSTALL ALL SILT FENCING OR OTHER TEMPORARY EROSION CONTROL MEASURES AS NEEDED PRIOR TO REMOVAL OF THE BASIN.
- UTILIZE OUTLET STRUCTURES THAT WITHDRAW WATER FROM THE SEDIMENT BASIN SURFACE FOR DRAW DOWN OF WATER IN BASIN FOR MAINTENANCE OR CLOSE OUT UNLESS INFEASIBLE. SEE REQUIREMENTS OF NC001 PERMIT PART II, SECTION G, ITEM (4) ENTITLED "DRAW DOWN OF SEDIMENT BASINS FOR MAINTENANCE OR CLOSE OUT" AND REFER TO WAKE COUNTY "FILTER BAG FOR DEWATERING ACTIVITIES" CONSTRUCTION DETAIL.
- REMOVE SKIMMER BASIN AND SKIMMER FINE GRADE AREA IN PREPARATION FOR BIORETENTION CONSTRUCTION AND SEEDING. PERFORM SEEDED PREPARATION. SEED, MULCH AND ASPHALT TACK ANY RESULTING BARE AREAS IMMEDIATELY.
- INSTALL VELOCITY DISSIPATORS AS SHOWN.
- WHEN SITE IS FULLY STABILIZED, CALL ENVIRONMENTAL CONSULTANT FOR APPROVAL OF REMOVING REMAINING TEMPORARY EROSION CONTROL MEASURES AND ADVISE ON WHEN SITE CAN BE ISSUED A CERTIFICATE OF COMPLETION. NOTE: A MEETING SHOULD ALSO BE SCHEDULED WITH THE ENVIRONMENTAL CONSULTANT TO DETERMINE WHEN A BASIN MAY BE CONVERTED FOR STORMWATER USE. SOME MUNICIPALITIES MAY ALSO REQUIRE THIS.
- IF SITE IS APPROVED, REMOVE TEMPORARY DIVERSIONS, SILT FENCE, SEDIMENT BASINS, ETC., AND SEED OUT OR STABILIZE ANY RESULTING BARE AREAS. ALL REMAINING PERMANENT EROSION CONTROL DEVICES, SUCH AS VELOCITY DISSIPATORS, SHOULD NOW BE INSTALLED.
- WHEN VEGETATION HAS BECOME ESTABLISHED, CALL FOR A FINAL SITE INSPECTION BY THE ENVIRONMENTAL CONSULTANT. OBTAIN A CERTIFICATE OF COMPLETION.

DISTURBED AREA = 6.0 AC

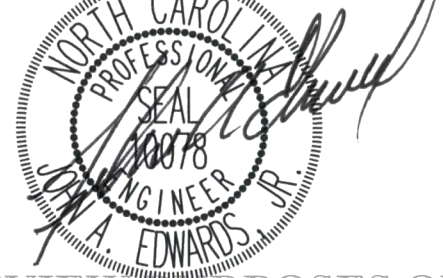


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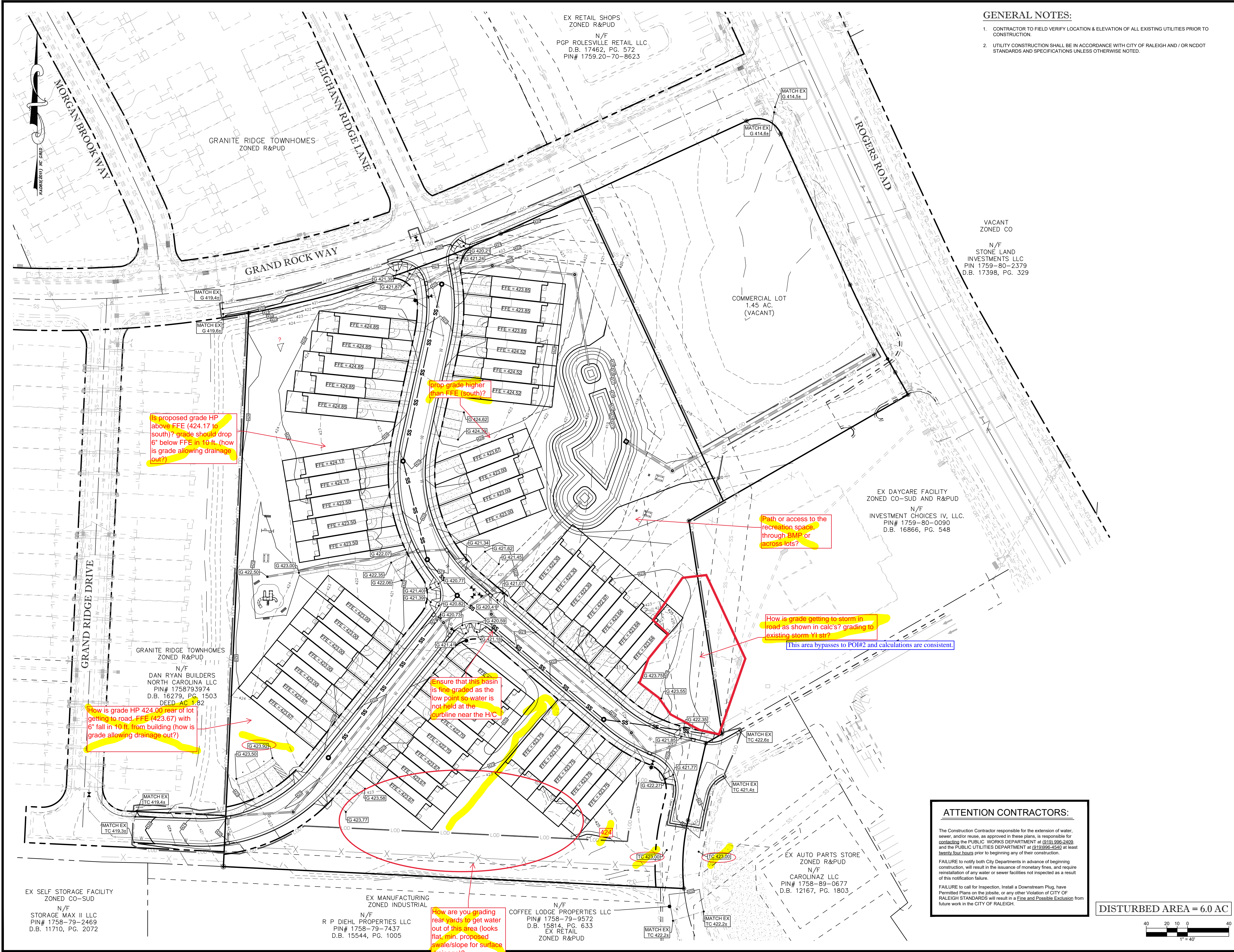
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EROSION AND SEDIMENT CONTROL PLAN - PHASE II

Revisions		
Number	Description	Date

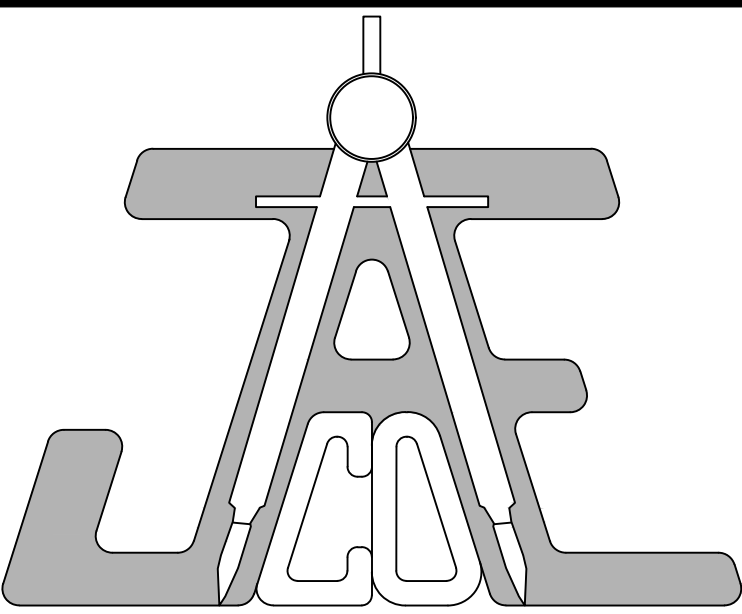
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DRAWING SCALE: 1" = 40'
DRAWN BY: TT
CHECKED BY: JAE, JR.
DATE ISSUED: 06/22/2020

C-3.2



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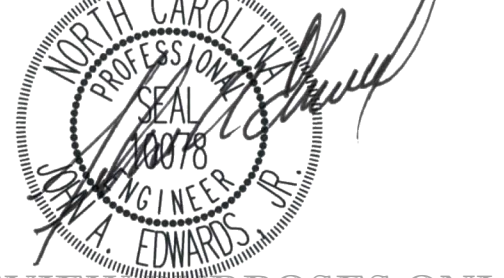


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EX MAJOR CONTOUR	---	XXX---
W/ ELEV LABEL		
EX MINOR CONTOUR	---	XXX---
W/ ELEV LABEL		
PROP MAJOR CONTOUR	---	---
W/ ELEV LABEL		
PROP MINOR CONTOUR	---	---
W/ ELEV LABEL		
SPOT ELEVATION		

GRADING PLAN

Revisions		
Number	Description	Date

JAECO #: 362-09

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CHECKED BY: JAE, JR.

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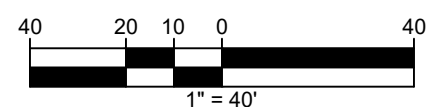
ATTENTION CONTRACTORS:

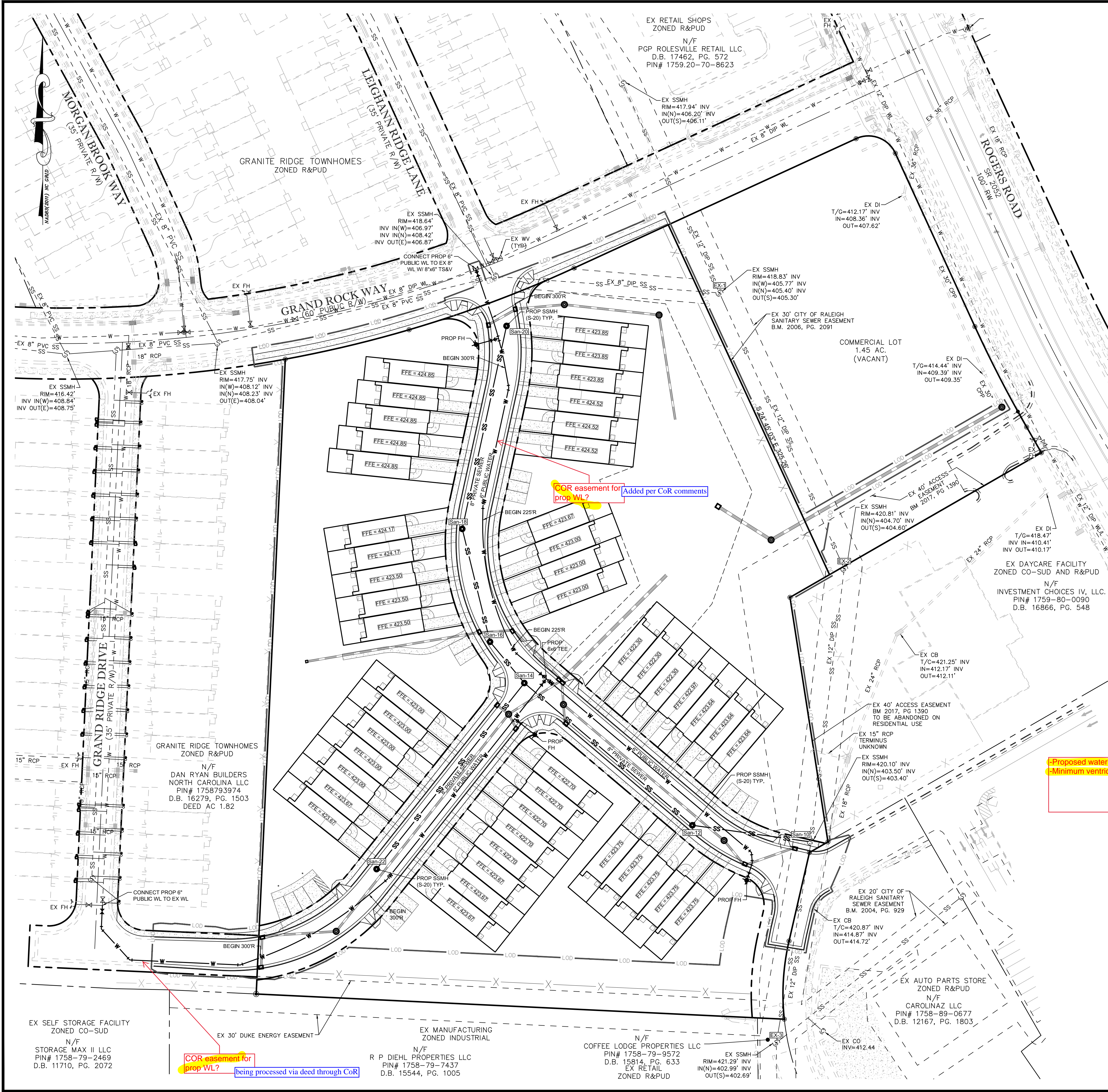
The Construction Contractor responsible for the extension of water, sewer, and/or reuse, as approved in these plans, is responsible for contacting the PUBLIC WORKS DEPARTMENT at (919) 996-2408 and the PUBLIC UTILITIES DEPARTMENT at (919) 996-4542 at least twenty-four hours prior to beginning any of their construction.

FAILURE to notify both City Departments in advance of beginning construction, will result in the issuance of monetary fines, and require reinstallation of any water or sewer facilities not inspected as a result of this notification failure.

FAILURE to call for inspection, install a Downstream Plug, have Permitted Plans on the jobsite, or any other Violation of CITY OF RALEIGH STANDARDS will result in a Fine and Possible Exclusion from future work in the CITY OF RALEIGH.

DISTURBED AREA = 6.0 AC



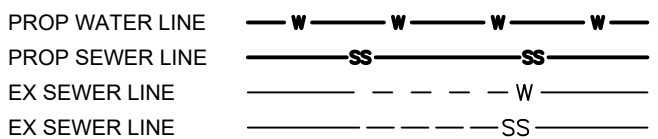


STANDARD UTILITY NOTES (as applicable):

1. All materials & construction methods shall be in accordance with City of Raleigh design standards, details & specifications (reference: CORPUD Handbook, current edition)
2. Utility separation requirements:
 - a. A distance of 100' shall be maintained between sanitary sewer & any private or public water supply source such as an impounded reservoir used as a source of drinking water. If adequate lateral separation cannot be achieved, ferrous sanitary sewer pipe shall be specified & installed to watertight specifications. However, the minimum separation shall not be less than 25' from a private well or 50' from a public well.
 - b. When installing water &/or sewer mains, the horizontal separation between utilities shall be 10'. If this separation cannot be maintained due to existing conditions, the variation allowed is the water main in a separate trench with the elevation of the water main at least 18" above the top of the sewer & must be approved by the Public Utilities Director. All distances are measured from outside diameter to outside diameter.
 - c. Where it is impossible to obtain proper separation, or anytime a sanitary sewer passes over a watermain, DIP materials or steel encasement extended 10' on each side of crossing must be specified & installed to watertight specifications.
 - d. 5.0' minimum horizontal separation is required between all sanitary sewer & storm sewer facilities, unless DIP material is specified for sanitary sewer.
 - e. Maintain 18" min. vertical separation at all watermain & RCP storm drain crossings; maintain 18" min. vertical separation at all sanitary sewer & RCP storm drain crossings. Where adequate separations cannot be achieved, specify DIP materials & a concrete cradle having 6" min. clearance (per CORPUD details W-41 & S-49).
 - f. All other underground utilities shall cross water & sewer facilities with 18" min. vertical separation required.
3. Any necessary field revisions are subject to review & approval of an amended plan &/or profile by the City of Raleigh Public Utilities Department prior to construction.
4. Developer shall provide 15 days advance notice to owner for any work required within an existing City of Raleigh Utility Easement traversing private property.
5. Contractor shall maintain continuous water & sewer service to existing residences & businesses throughout construction of project. Any necessary service interruptions shall be preceded by a 24 hour advance notice to the City of Raleigh Public Utilities Department.
6. 3.0' minimum cover is required on all water mains & sewer force mains. 4.0' minimum cover is required on all reuse mains.
7. It is the developer's responsibility to abandon or remove existing water & sewer services not being used in redevelopment of a site unless otherwise directed by the City of Raleigh Public Utilities Department. This includes abandoning tap at main & removal of service from ROW or easement per CORPUD Handbook procedure.
8. Install 3/4" copper water service with 6" meter located within private ROW. NOTE: It is the applicant's responsibility to properly size the water service for each connection to provide adequate flow & pressure.
9. Install 4" PVC sewer service @ 1.0% minimum grade with cleanouts located at ROW or easement line & spaced every 75 linear feet maximum.
10. Pressure reducing valves are required on all water services exceeding 80 psi; backwater valves are required on all sanitary sewer services having building drains lower than 1.0' above the next upstream manhole.
11. All environmental permits applicable to the project must be obtained from NCDWQ, USACE &/or FEMA for any riparian buffer, wetland &/or floodplain impacts (respectively) prior to construction.
12. NCDOT / Railroad Encroachment Agreements are required for any utility work (including main extensions & service taps) within state or railroad ROW prior to construction.
13. Grease Interceptor / Oil Water Separator sizing calculations & installation specifications shall be approved by the CORPUD FOG Program Coordinator prior to issuance of a Building Permit. Contact Stephen Calverley at (919) 996-2334 or Stephen.calverley@raleighnc.gov for more information.
14. Cross-connection control protection devices are required based on degree of health hazard involved as listed in Appendix B of the Rules Governing Public Water Systems in North Carolina. These guidelines are the minimum requirements. The devices shall meet American Society of Sanitary Engineering (ASSE) standards or be on the University of Southern California approval list. The devices shall be installed and tested (both initial and periodic testing thereafter) in accordance with the manufacturer's recommendations or the local cross-connection control program, whichever is more stringent. Contact Joanie Hartley at (919) 996-5223 or joanie.hartley@raleighnc.gov for more information.

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3. PROPOSED PRIVATE SANITARY SEWER TO BE 8" PVC.
4. PROPOSED PUBLIC WATER LINE TO BE 6" DIP.
5. 30' PUBLIC CITY OF RALEIGH WATERLINE EASEMENT AND 5' CITY OF RALEIGH WATERLINE EASEMENT TO EACH METER AND FIRE HYDRANT TO BE RECORDED.



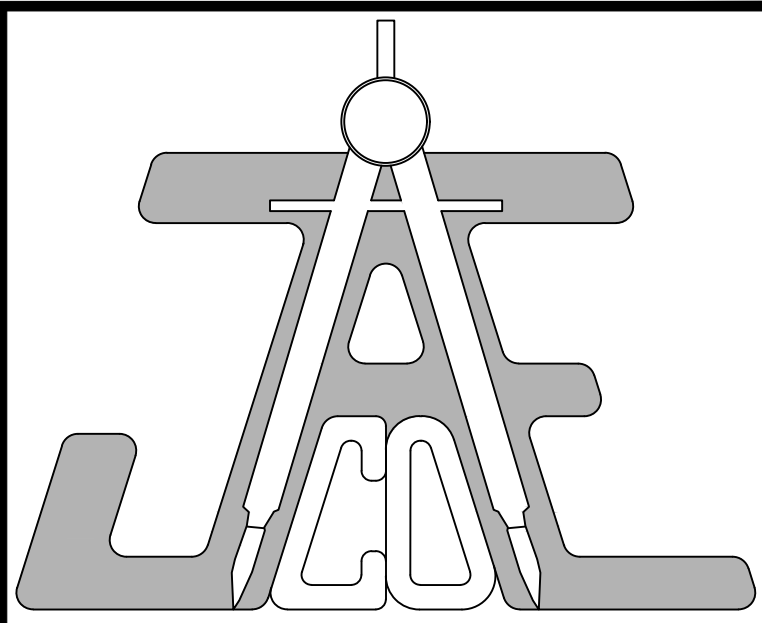
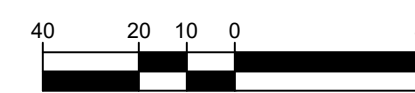
Proposed water and sewer service connections (meters of CO) noted in standard notes and provided accordingly

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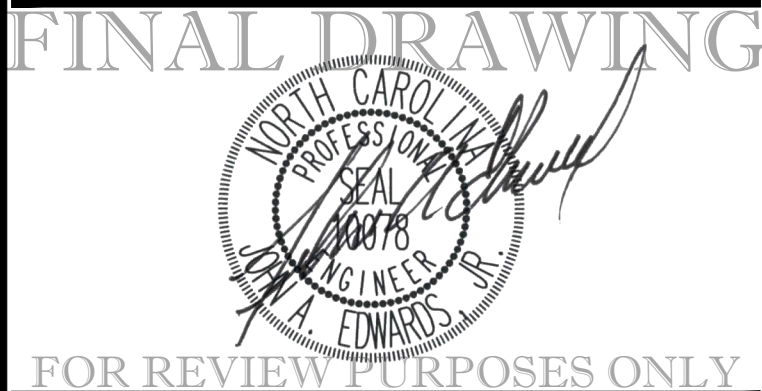
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ABBREVIATIONS

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LOC	LOCATION		MANAGEMENT AGENCY
DB	BOOK OF MAPS		ESMT
DB	DEED BOOK		TYP
PG	PAGE		STORMWATER
N/F	NOW OR FORMERLY		MANAGEMENT
ROW	RIGHT OF WAY		SYSTEM
EIP	EX IRON PIPE		W
EMAG	EX MAG NAIL	SF	SQUARE FEET
ECM	EX CONCRETE	AC	ACRE
	MONUMENT	LF	LINEAR FEET
EIR	EX IRON ROD	UDO	UNIFIED DEVELOPMENT
IPS	IRON PIPE SET		ORDINANCE
EOP	EDGE OF PAVEMENT		GIS
SS	SANITARY SEWER		INFORMATION SYSTEM
FM	FORCE MAIN		NCDOT
PH	FIRE HYDRANT		NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
ELEC	ELECTRIC		
TBD	TO BE DETERMINED		
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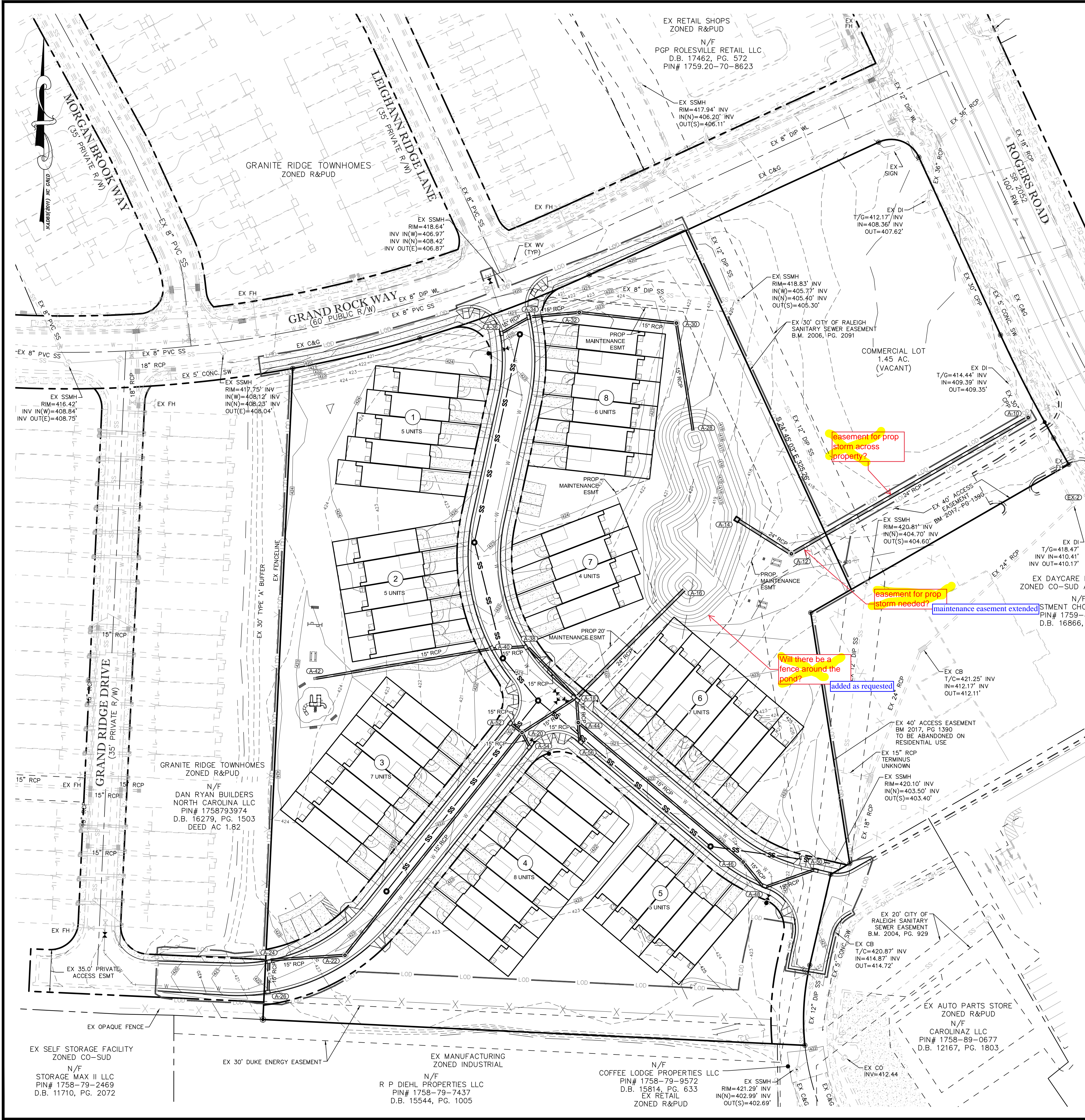
City of Raleigh Development Approval _____ Raleigh Water Review Officer _____

UTILITY PLAN

Revisions	Number	Description	Date

JAECO #: 362-09
DRAWING SCALE: 1" = 40'
DRAWN BY: JT
CHECKED BY: JAE, JR.
DATE ISSUED: 06/22/2020

C-5.0



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STRUCTURE ID	TYPE	STD. DETAIL	RIM	INVERT IN (U/S STR.)	INVERT OUT (D/S STR.)	PIPE OUT
A-10	DOGHOUSE MH	SW-10.05	416.86	409.61 (EX-2) 409.95 (A-12)	409.61 (EX-1)	32.25LF 30" @ 0.68%
A-12	MH	SW-10.05	419.36	411.20 (A-14)	411.10 (A-10)	224.85LF 24" RCP @ 0.51%
A-14	4"x4" RISER	SEE SHEET C-9.5	418.50		411.50 (A-12)	52.94LF 24" RCP @ 0.57%
A-16	FES			414.00 (A-18)		
A-18	CB	SW-10.01 W/4530 GRATE (DOUBLE)	420.90	416.00 (A-20) 416.00 (A-44) 416.00 (A-38)	415.25 (A-16)	125.21LF 24" RCP @ 1.00%
A-20	MH	SW-10.05	421.11	416.40 (A-22) 416.55 (A-52) 416.40 (A-54)	416.30 (A-18)	53.24LF 15" RCP @ 0.56%
A-22	MH	SW-10.05	422.88	417.70 (A-24)	417.60 (A-20)	234.16LF 15" RCP @ 0.51%
A-24	CB	SW-10.01 W/4530 GRATE	422.39	418.15 (A-26)	418.05 (A-22)	62.70LF 15" RCP @ 0.56%
A-26	CB	SW-10.01 W/4530 GRATE	422.38		418.30 (A-24)	27.54LF 15" RCP @ 0.54%
A-28	FES			414.75 (A-30)		
A-30	MH	SW-10.05	422.40	415.80 (A-32)	415.70 (A-28)	89.36LF 15" RCP @ 1.06%
A-32	MH	SW-10.05	422.81	416.70 (A-34)	416.60 (A-30)	80.39LF 15" RCP @ 1.00%
A-34	CB	SW-10.01 W/4530 GRATE	421.67	417.25 (A-36)	417.15 (A-32)	40.54LF 15" RCP @ 1.11%
A-36	CB	SW-10.01 W/4530 GRATE	422.18		417.55 (A-34)	28.44LF 15" RCP @ 1.05%
A-38	CB	SW-10.01 W/4530 GRATE	421.53	416.40 (A-40)	416.30 (A-18)	58.47LF 15" RCP @ 0.51%
A-40	CB	SW-10.01 W/4530 GRATE	421.78	416.65 (A-42)	416.55 (A-38)	30.13LF 15" RCP @ 0.50%
A-42	YI	SW-10.03	422.50		417.40 (A-40)	146.76LF 15" RCP @ 0.51%
A-44	MH	SW-10.05	420.72	416.25 (A-46) 416.25 (A-56)	416.15 (A-18)	20.66LF 15" RCP @ 0.73%
A-46	MH	SW-10.05	422.86	417.25 (A-48)	417.15 (A-44)	177.70LF 15" RCP @ 0.51%
A-48	CB	SW-10.01 W/4530 GRATE	422.82	417.50 (A-50)	417.40 (A-46)	27.11LF 15" RCP @ 0.55%
A-50	CB	SW-10.01 W/4530 GRATE	422.13		417.75 (A-48)	45.78LF 15" RCP @ 0.55%
A-52	CB	SW-10.01 W/4530 GRATE	421.33		416.70 (A-20)	13.50LF 15" RCP @ 1.11%
A-54	CB	SW-10.01 W/4530 GRATE	421.37		416.60 (A-20)	14.71LF 15" RCP @ 1.36%
A-56	CB	SW-10.01 W/4530 GRATE	421.02		416.35 (A-44)	17.17LF 15" RCP @ 0.58%

Storm calcs look good other than:
Provide the 25-year HGLs for the pipe system.
What is the existing 30" CPP pipe flow based on? Please show assumptions and drainage area if not already provided.

all HGLs shown in report are 25-yr; additional notation added for clarity
Assumptions (half-full) are discussed in the "downstream impact analysis" section of the narrative with supporting calculations provided in the "downstream impact analysis" section of the report

IMPERVIOUS AREA SUMMARY			
POI #1	ON SITE	IMPERVIOUS AREA [AC]	
		TO FACILITY	BYPASS
POI #1	ON SITE	2.28	0.04
	OFF SITE	0.03	
POI #2	ON SITE	0.13	
	OFF SITE	0.01	
POI #3	ON SITE	0.00	
	OFF SITE	0.09	
DEVELOPMENT	ON SITE	2.45	
	OFF SITE	0.13	
		TOTAL	2.58

40 20 10 0 40

1" = 40'

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FINAL DRAWING

FOR REVIEW PURPOSES ONLY

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DB	DEED BOOK		
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ROW	RIGHT OF WAY	SWM	STORMWATER MANAGEMENT
EIP	EX IRON PIPE		
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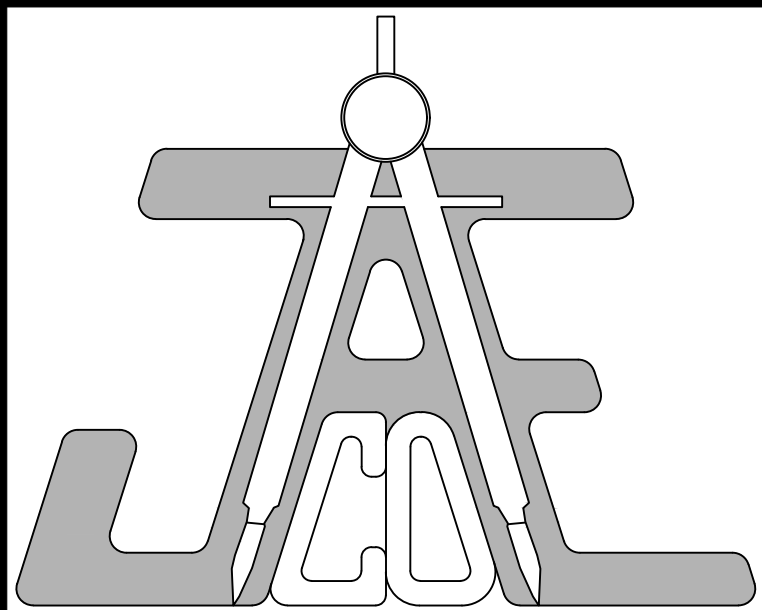
STORMDRAIN & STORMWATER MANAGEMENT PLAN

Revisions

Number	Description	Date

JAECO #: 362-09
DRAWING SCALE: 1" = 40'
DRAWN BY: TT
CHECKED BY: JAE, JR.
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C-6.0



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PROFILES

Revisions	Number	Description	Date

JAEKO #: 362-09

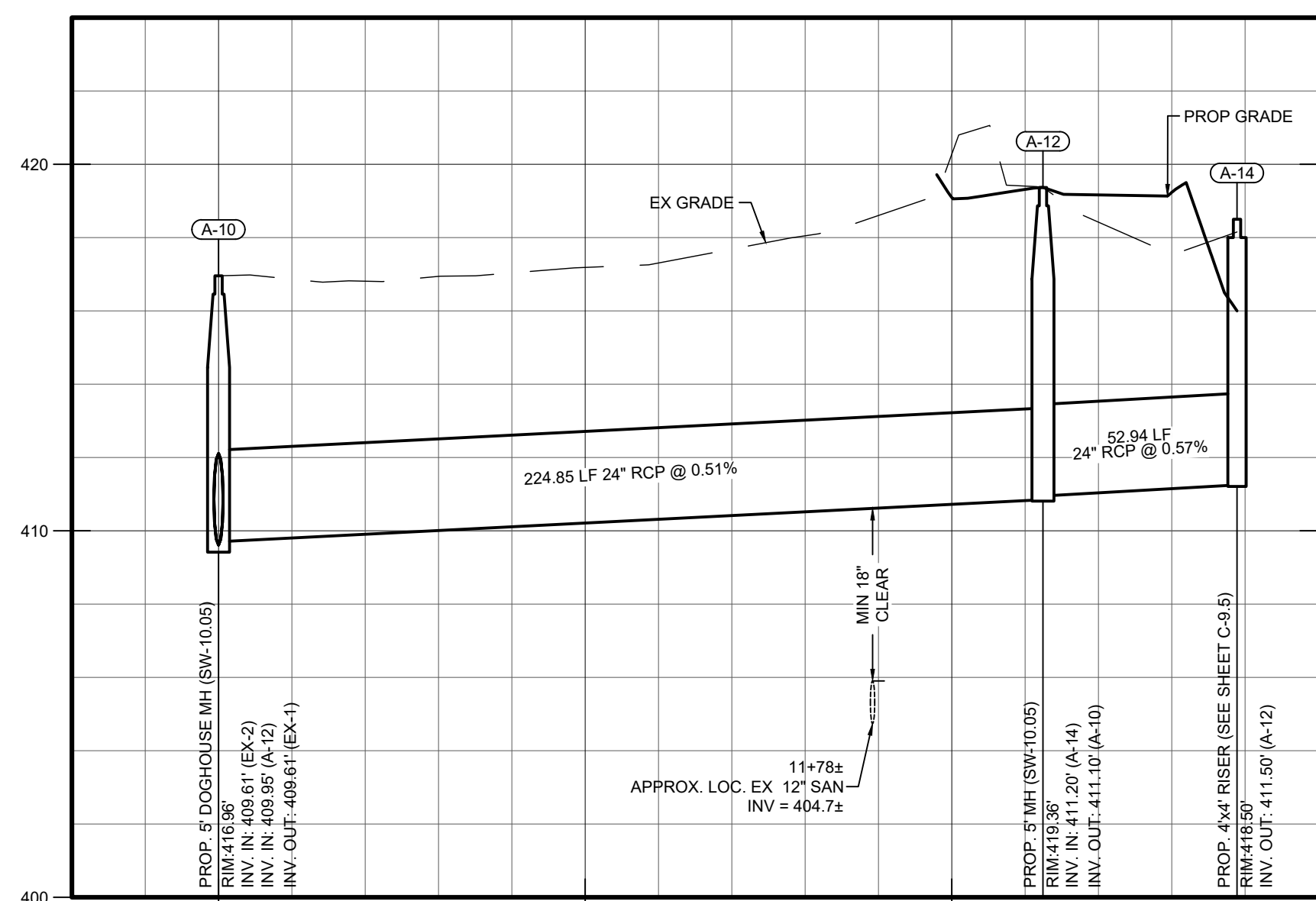
DRAWING SCALE: AS SHOWN

DRAWN BY: TT

CHECKED BY: JAE, JR.

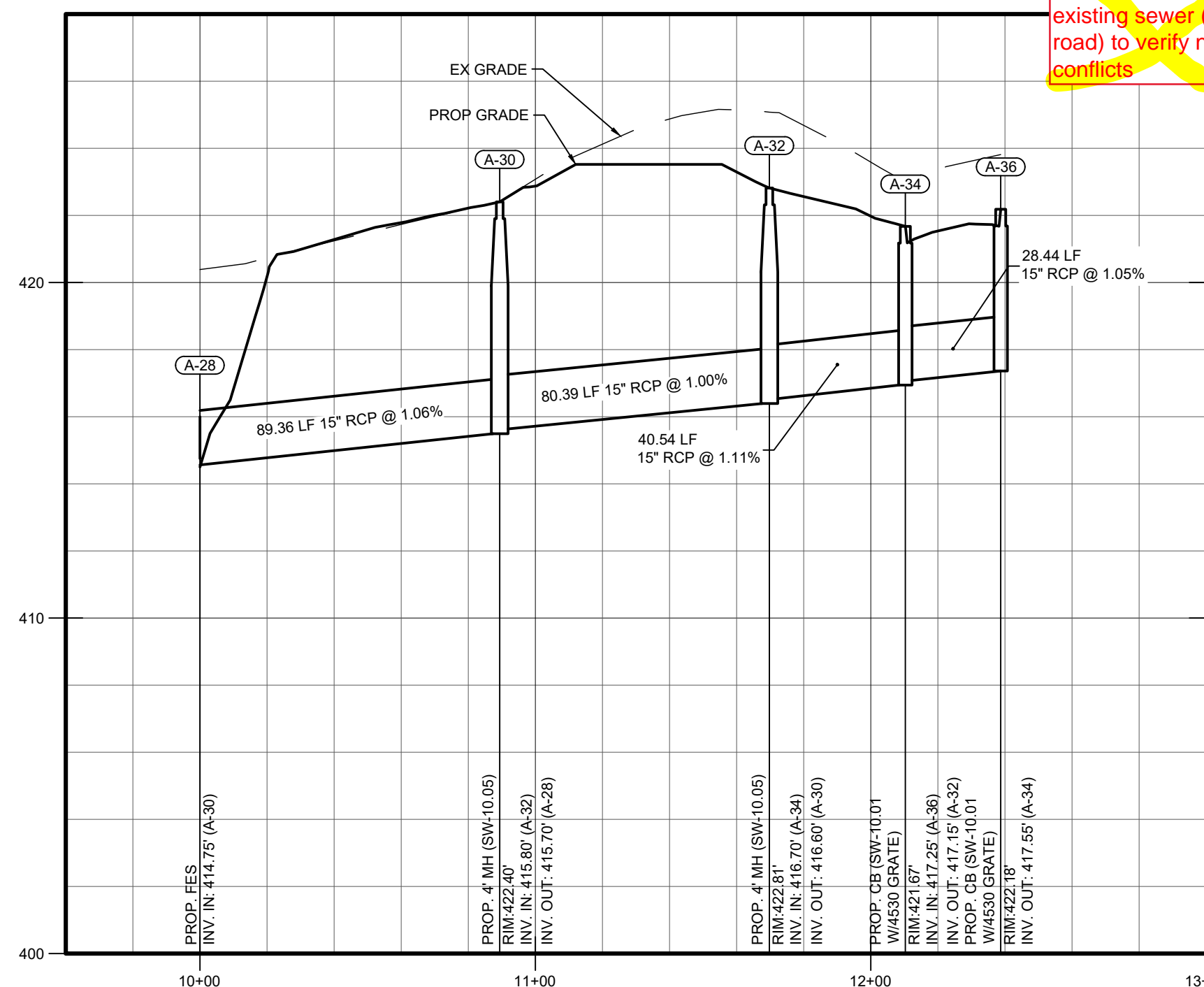
DATE ISSUED: 06/22/2020

C-7.0



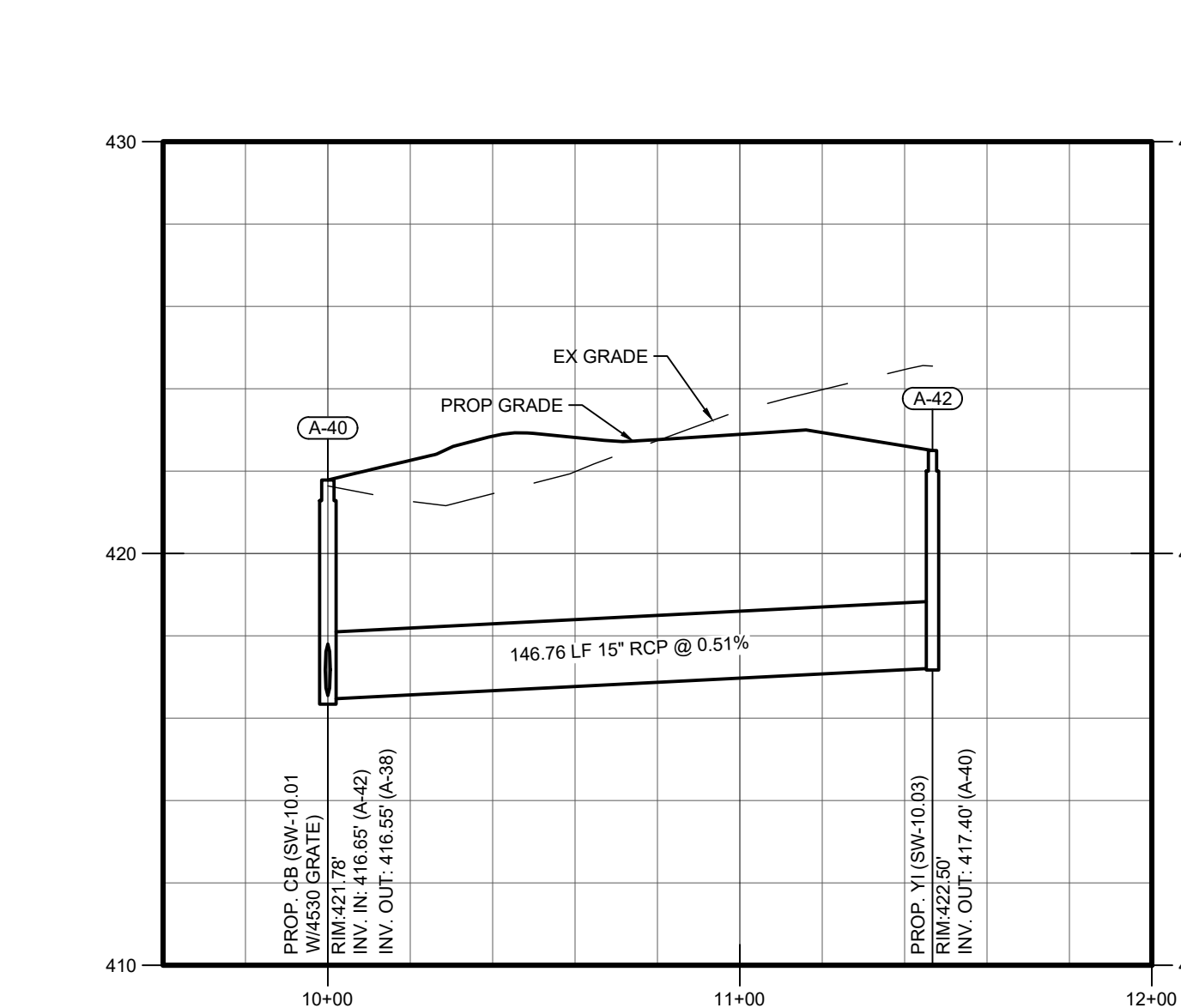
Storm Outfall 'A' Profile

HORIZONTAL SCALE: 1" = 40'
VERTICAL SCALE: 1" = 4'



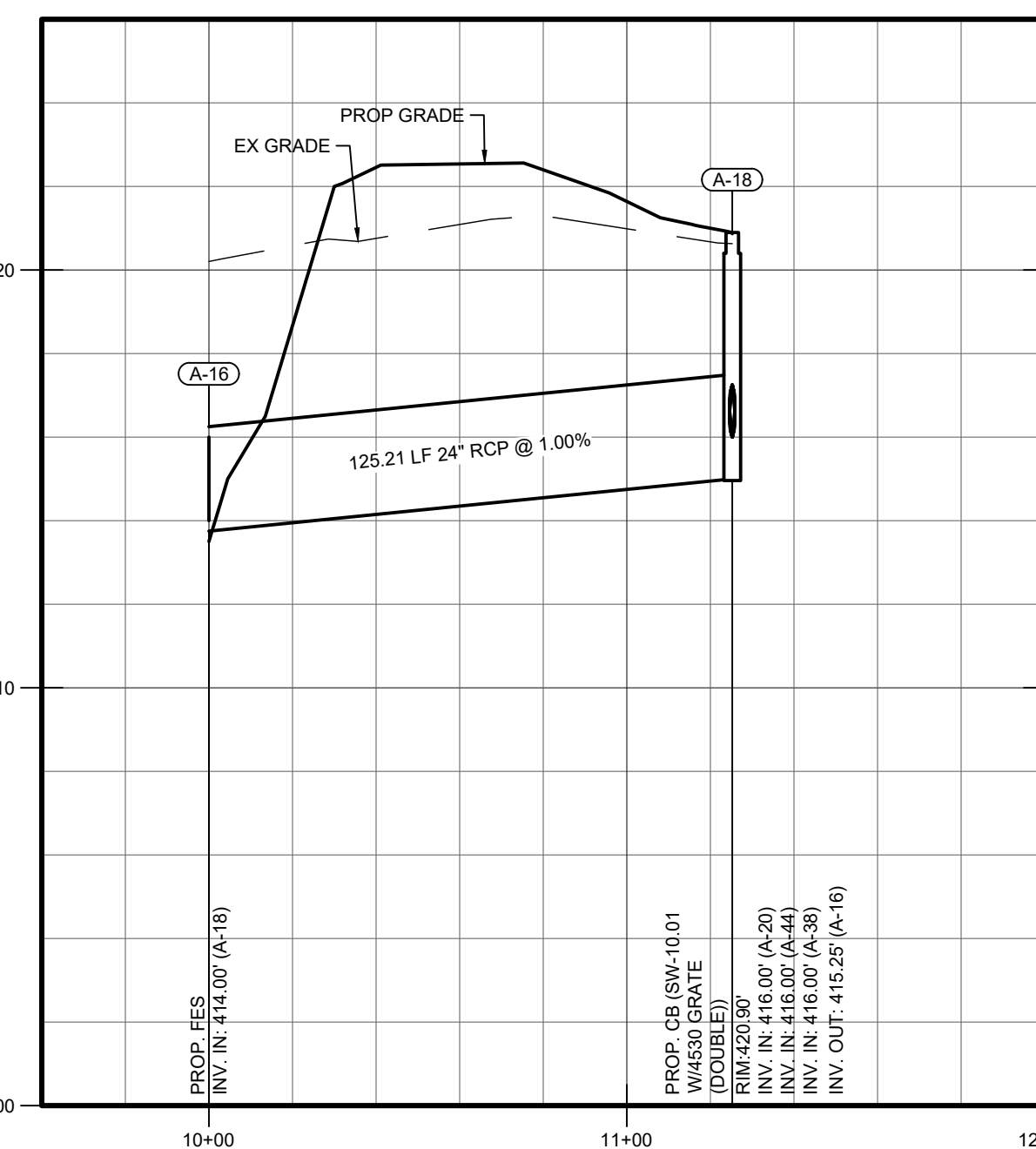
Storm Outfall 'C' Profile

HORIZONTAL SCALE: 1" = 40'
VERTICAL SCALE: 1" = 4'



Storm Outfall 'D' Profile

HORIZONTAL SCALE: 1" = 40'
VERTICAL SCALE: 1" = 4'



Storm Outfall 'B' Profile

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grade looks to tie into crown of existing road? verify with station on plans

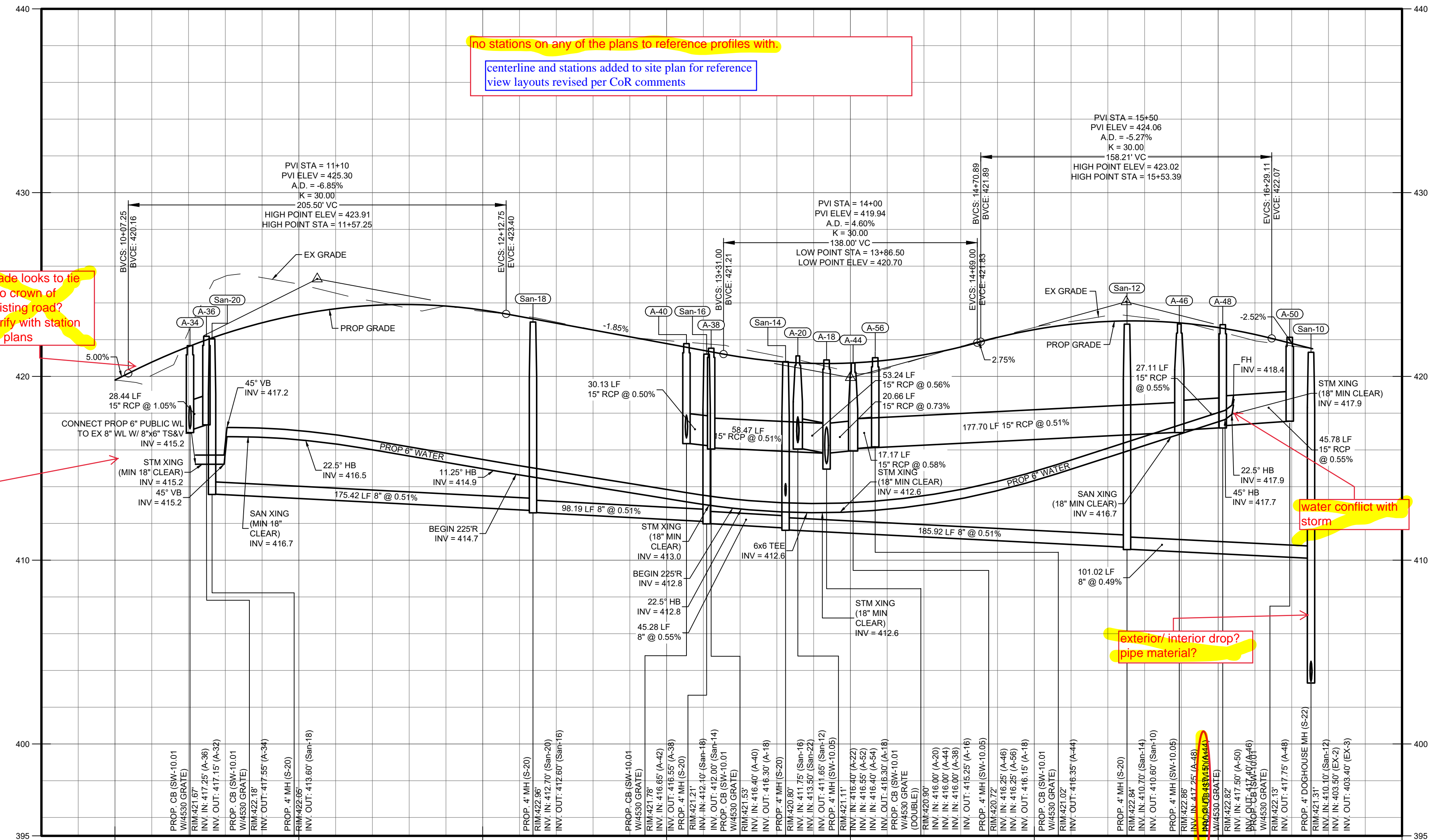
show WL to TSV in road, also show existing sewer (in road) to verify no conflicts

no stations on any of the plans to reference profiles with centerline and stations added to site plan for reference view layouts revised per CoR comments

water conflict with storm

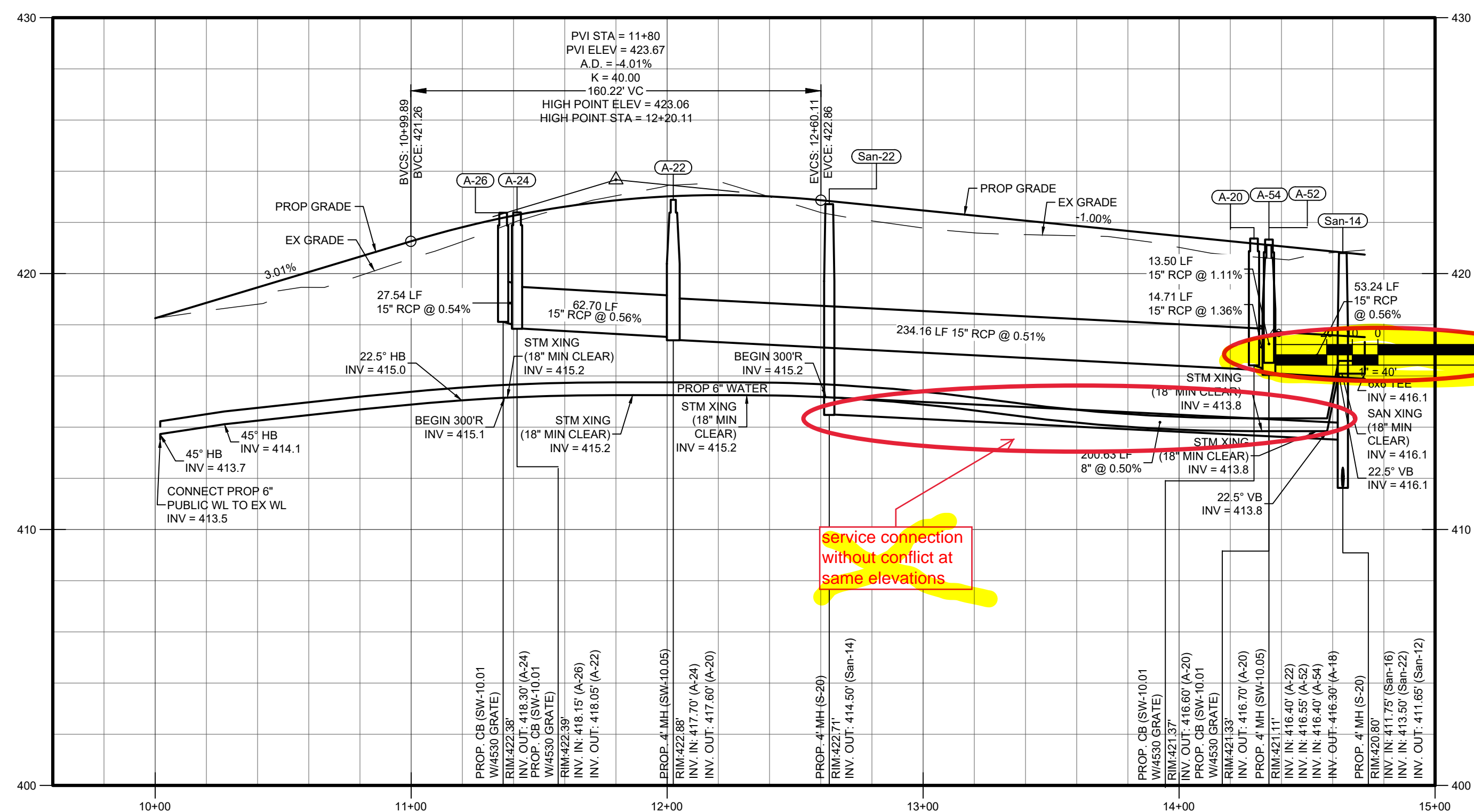
exterior/interior drop? pipe material?

service connection without conflict at same elevations



Private Street 'A' Profile

HORIZONTAL SCALE: 1" = 40'
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Private Street 'B' Profile

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VERTICAL SCALE: 1" = 4'